

Appl. No. 10/801,404

Reply to Office action of July 22, 2004

REMARKS

Claims 1-8 are pending in the application. Claims 3, 6, and 8 have been amended. The specification has been amended to add the patent number of the now-issued parent application. Reconsideration of the application in view of these amendments and the following remarks is requested. Those amendments and remarks are believed to be fully responsive to the Office Action mailed July 22, 2004 and to place all the pending claims in condition for allowance. The foregoing amendments are taken in the interest of expediting prosecution, and there is no intention of surrendering any range of equivalents to which Applicants would otherwise be entitled in view of the prior art.

OBJECTION TO THE SPECIFICATION

The Specification was objected to for failing to recite the patent number of the now-issued parent application. The specification has now been corrected by inserting the appropriate patent number. No new matter has been added by this amendment.

CLAIM REJECTIONS – 35 USC § 102

Claims 5 and 6 were rejected under 35 USC § 102(e) in view of Mallery et al. (6,558,562). Although Mallery et al. does disclose an elongated gripping assembly, Applicants disagree that the reference discloses each and every element of claims 5 and 6 as required for anticipation under 35 USC § 102. Contrary to the assertion by the Examiner, Mallery et al. does not disclose "a first actuated wafer edge clamping assembly proximate the first end of the

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gripping assembly, and moveable between an open position and a wafer clamp position."

Elements 60, 62, 64, 66 referred to by the Examiner do not function as the recited "wafer edge clamping assembly." The "clamping assembly" of Mallory et al. associated with the "first end of the gripping assembly" consists of raised wall 48 and support shelf 46 (see Fig. 3 and the description in columns 4 and 5). Neither of these elements is moveable between an open position and a wafer clamp position. Instead of functioning as a wafer edge clamping assembly, elements 60, 62, 64, 66 function to aid in alignment and loading of a wafer from the wand to a wafer processing apparatus and the unloading of the wafer from that apparatus (see column 5, beginning at line 20). In addition, Mallory et al. fails to disclose the recited "wafer centering mechanism configured to position a semiconductor wafer when the first actuated wafer edge clamping assembly and the second actuated wafer edge clamping assembly are in the open position." Element 56 of Mallory et al., referenced by the Examiner, does not function to position a semiconductor wafer. Element 56 of Mallory et al. is a drive rod coupled to moveable gripping finger 38. The function of element 56 is to move gripping finger 38 between an extended position and a retracted position (column 5, lines 13-18). The drive rod can function to move gripping finger 38 to the extended position so that the wafer is not securely grasped by the gripping assembly, but the drive rod does not position the wafer. In addition, with respect to dependent claim 6, Mallory et al. fails to disclose an actuator for simultaneously actuating first and second moveable edge clamping assemblies at least because the reference fails to disclose the first moveable edge clamping assembly. Accordingly, at least for these reasons, Mallory et al. fails to disclose the claimed invention.

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Claims 5-8 were also rejected under 35 USC § 102(b) in view of Japanese Patent 02-288247 (the '247 patent). This rejection is also believed to be in error for at least the following reason. The '247 patent fails to disclose "a wafer centering mechanism configured to position a semiconductor wafer when the first actuated wafer edge clamping assembly and the second actuated wafer edge clamping assembly are in the open position" as recited in claim 5. Contrary to the assertion by the Examiner, elements 9 and 10 in the '247 patent are not a wafer centering mechanism. As best understood, elements 9 and 10 are part of the clamping mechanism or are moveable arms coupled to the clamping mechanism, depending on how the Examiner chooses to define the clamping mechanism of the '247 patent. Fig. 5 of the '247 patent illustrates the wafer handling device with the gripping assembly in the open position. In this open position, elements 9 and 10 have nothing to do with centering a wafer. Accordingly, the '247 patent fails to disclose at least one of the recited elements of independent claim 5. At least for this same reason dependent claims 6-8 also distinguish over the cited '247 patent.

CLAIM REJECTIONS – 35 USC § 112

Claims 6 and 8 were rejected under 35 USC § 112, second paragraph, for lack of antecedent basis. This rejection is believed overcome by the above amendment to claims 6 and 8 wherein "first and second wafer edge clamping devices" was replaced by "first actuated wafer edge clamping assembly and the second actuated wafer edge clamping assembly," the wording found in independent claim 5. Claim 3 was also amended to clarify which "step of rotating" was intended.

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CLAIM REJECTIONS - DOUBLE PATENTING

Claims 1-8 were rejected for obviousness-type double patenting over US Patent 6,558,562. This rejection is believed to be in error for at least the following reasons. Consider first the method claims 1-4 of the present application. These claims include the steps of "grasping a first workpiece between first and second rotatable catch mechanisms ...; rotating the first and second rotatable catch mechanisms to an open position ...; while processing the first workpiece, grasping a second workpiece between the first and second rotatable catch mechanisms on the first side of the workpiece handling end-effector; ... with third and fourth rotatable catch mechanisms on the second side of the workpiece end-effector rotated to an open position; ... and rotating the third and fourth rotatable catch mechanisms to a closed position to grasp the first workpiece; and rotating the first and second rotatable catch mechanisms to an open position...." The '562 patent neither discloses nor suggests and does not claim the above recited method steps. The '562 patent neither discloses nor suggests any rotatable catch mechanisms, and hence is totally silent as to any method steps involving rotatable catch mechanisms.

Apparatus claims 5-8 recite "...a first actuated wafer edge clamping assembly proximate the first end of the gripping assembly, and moveable between an open position and a wafer clamp position; ... and a wafer centering mechanism configured to position a semiconductor wafer when the first actuated wafer edge clamping assembly and the second actuated wafer edge clamping assembly are in the open position." For the same reasons discussed above with respect to the Mallory '562 patent and the 35 USC § 102 position taken by the Examiner, the '562 patent fails to disclose or suggest and does not claim the first wafer edge clamping assembly moveable from an open position to a wafer clamp position and also fails to disclose or

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suggest and does not claim the wafer centering mechanism.

The Examiner acknowledges that the pending claims are not identical to the claims of the '562 patent. Applicants agree that both patent and application relate to a wafer handling device. Mere similarity between the subject matter patented and sought to be patented, however, is not enough to invoke the doctrine of double patenting. Claims 1-8 of the present application are patentably distinct from the claims of the '562 patent for at least the reasons cited in the preceding two paragraphs. To maintain that the two sets of claims are not patentably distinct, one would have to ignore the above quoted language from pending claims 1-8. The above quoted language is neither disclosed nor in any way suggested by the '562 patent and is not claimed by the '562 patent. Accordingly, Applicants believe claims 1-8 are valid in view of the cited '562 patent.

ART CITED BUT NOT MADE OF RECORD

The art made of record but not relied upon has been carefully reviewed. The cited U.S. Patent No. 6,567,725 was filed after the priority date of the present application and therefore is not prior art. The other cited references are not believed to be relevant to the presently claimed invention.

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CONCLUSION

In view of Applicants' amendments and remarks, it is respectfully submitted that claims 1-8 of the present invention are believed to distinguish over the cited art and the Examiner's rejections under 35 USC § 102, 35 USC § 112, and the judicially created doctrine of obviousness-type double patenting have been overcome. Accordingly, Applicants respectfully submit that the application, as amended, is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants' attorneys at 480-385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No.50-2091 for any fee which may be due.

Respectfully submitted,

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